



SCH1337

P-Channel Power MOSFET -30V, -2A, 150mΩ, Single SCH6

ON Semiconductor®

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Features

- ON-resistance $R_{DS(on)1}=115m\Omega$ (typ.)
- 4V drive
- Halogen free compliance

Specifications

Absolute Maximum Ratings at $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings	Unit
Drain to Source Voltage	V_{DSS}		-30	V
Gate to Source Voltage	V_{GSS}		± 20	V
Drain Current (DC)	I_D		-2	A
Drain Current (Pulse)	I_{DP}	$PW \leq 10\mu s$, duty cycle $\leq 1\%$	-8	A
Allowable Power Dissipation	P_D	When mounted on ceramic substrate (900mm ² ×0.8mm)	0.8	W
Channel Temperature	T_{ch}		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

This product is designed to "ESD immunity < 200V**", so please take care when handling.

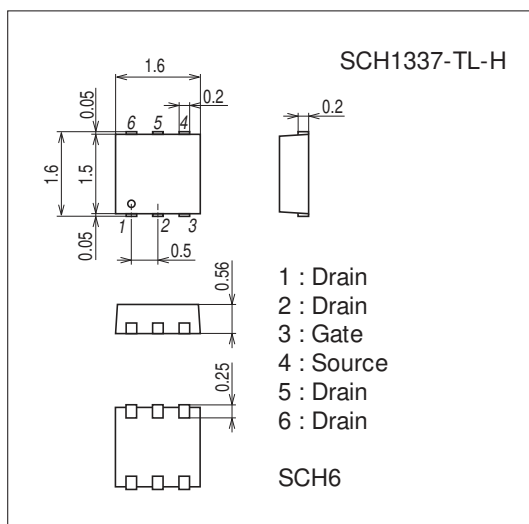
* Machine Model

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

unit : mm (typ)

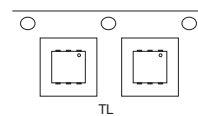
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Product & Package Information

- Package : SCH6
- JEITA, JEDEC : SOT-563
- Minimum Packing Quantity : 5,000 pcs./reel

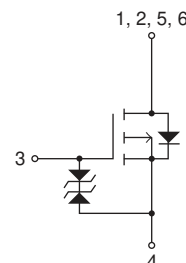
Packing Type : TL



Marking



Electrical Connection

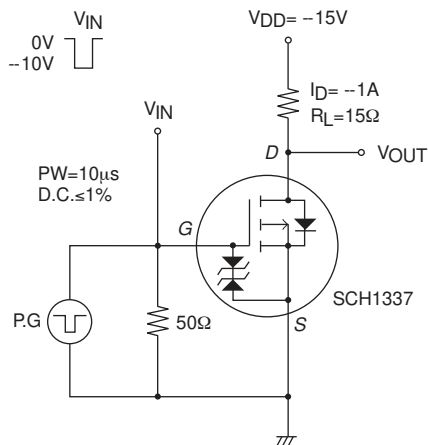


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Electrical Characteristics at Ta=25°C

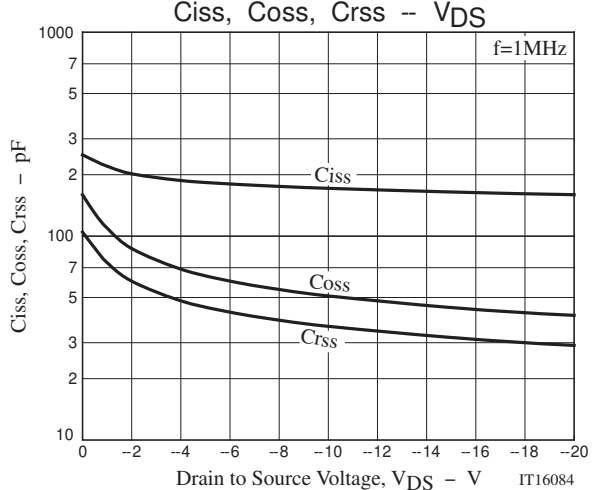
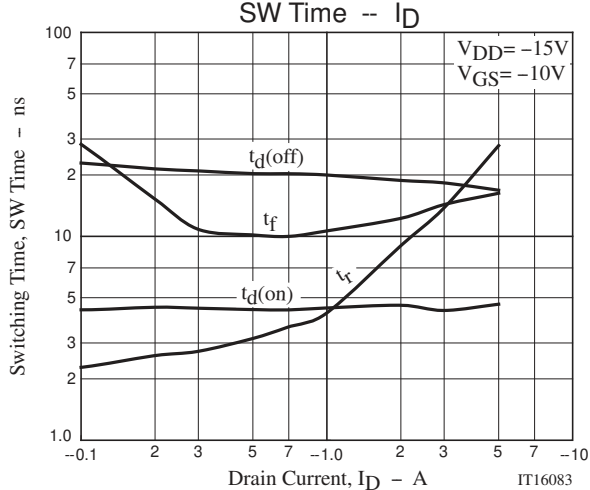
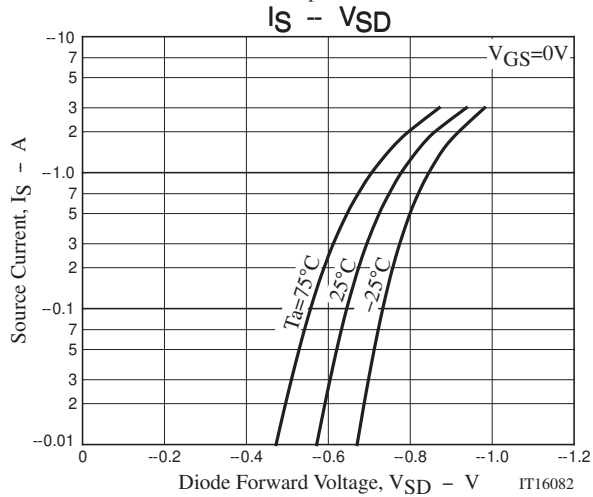
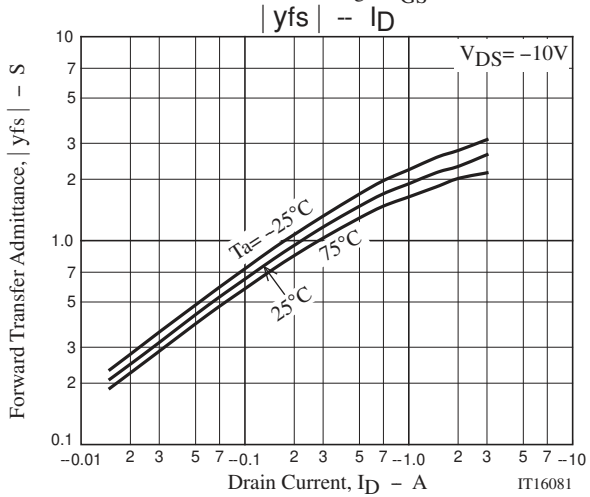
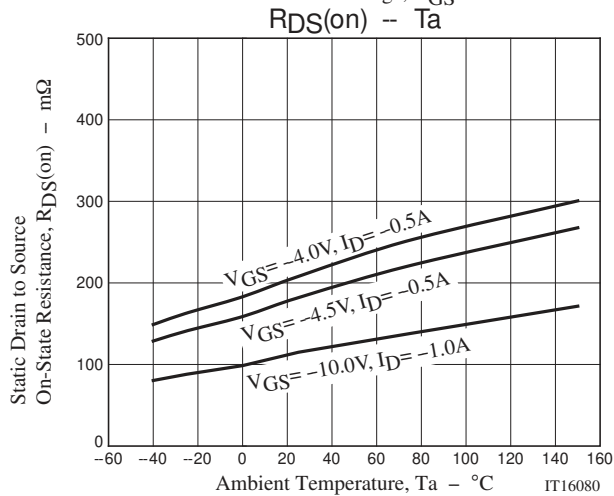
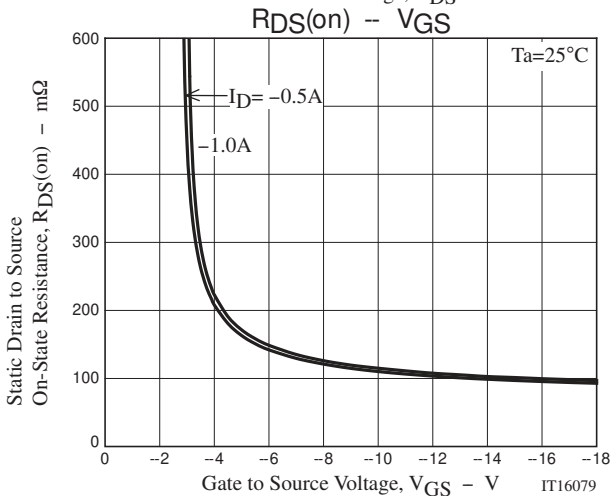
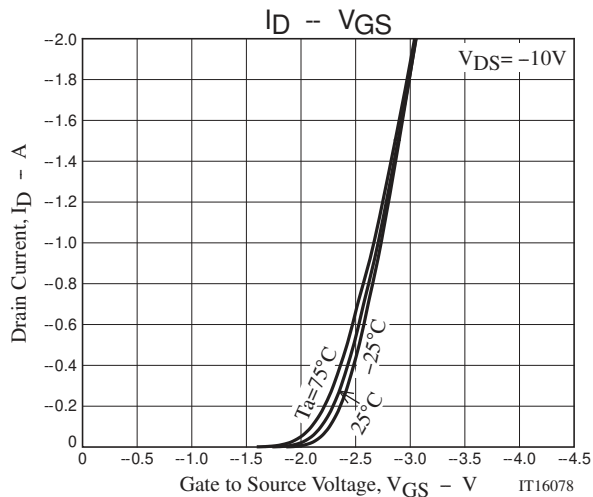
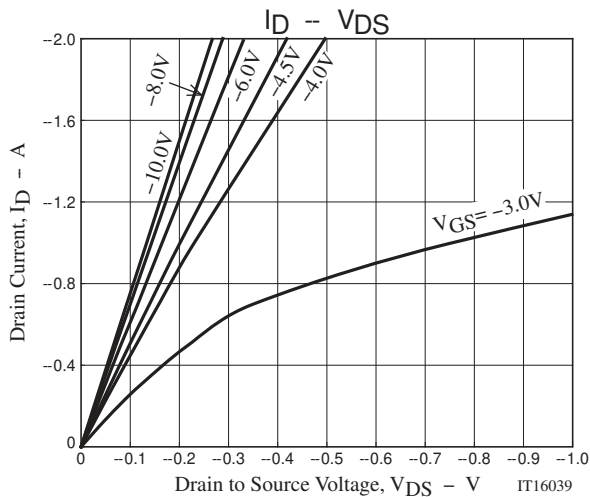
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain to Source Breakdown Voltage	V(BR)DSS	ID=-1mA, VGS=0V	-30			V
Zero-Gate Voltage Drain Current	IDSS	VDS=-30V, VGS=0V			-1	μA
Gate to Source Leakage Current	IGSS	VGS=±16V, VDS=0V			±10	μA
Cutoff Voltage	VGS(off)	VDS=-10V, ID=-1mA	-1.2		-2.6	V
Forward Transfer Admittance	yfs	VDS=-10V, ID=-1A		1.9		S
Static Drain to Source On-State Resistance	RDS(on)1	ID=-1A, VGS=-10V		115	150	mΩ
	RDS(on)2	ID=-0.5A, VGS=-4.5V		182	255	mΩ
	RDS(on)3	ID=-0.5A, VGS=-4V		208	292	mΩ
Input Capacitance	Ciss	VDS=-10V, f=1MHz		172		pF
Output Capacitance	Coss			51		pF
Reverse Transfer Capacitance	Crss			36		pF
Turn-ON Delay Time	td(on)		See specified Test Circuit.		4.5	
Rise Time	tr			4.2		ns
Turn-OFF Delay Time	td(off)			20		ns
Fall Time	tf			10.6		ns
Total Gate Charge	Qg	VDS=-15V, VGS=-10V, ID=-2A			3.9	
Gate to Source Charge	Qgs			0.6		nC
Gate to Drain "Miller" Charge	Qgd			0.8		nC
Diode Forward Voltage	VSD	IS=-2A, VGS=0V		-0.86	-1.5	V

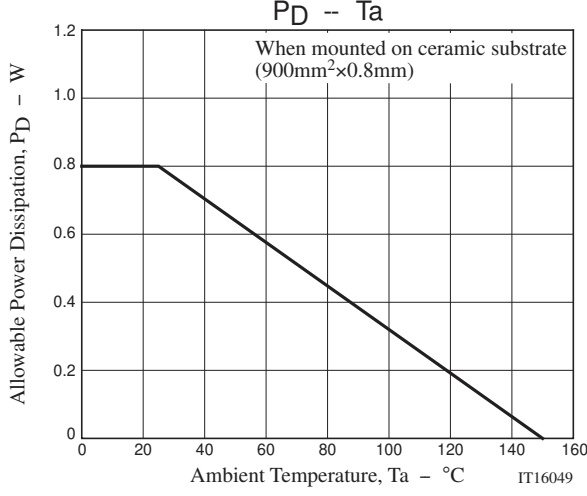
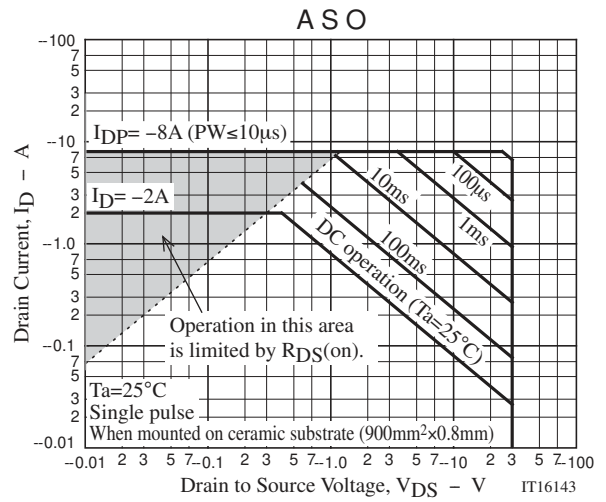
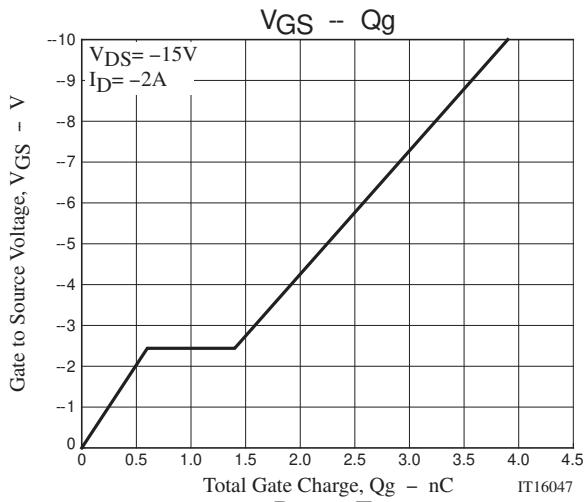
Switching Time Test Circuit



Ordering Information

Device	Package	Shipping	memo
SCH1337-TL-H	SCH6	5,000pcs./reel	Pb-Free and Halogen Free

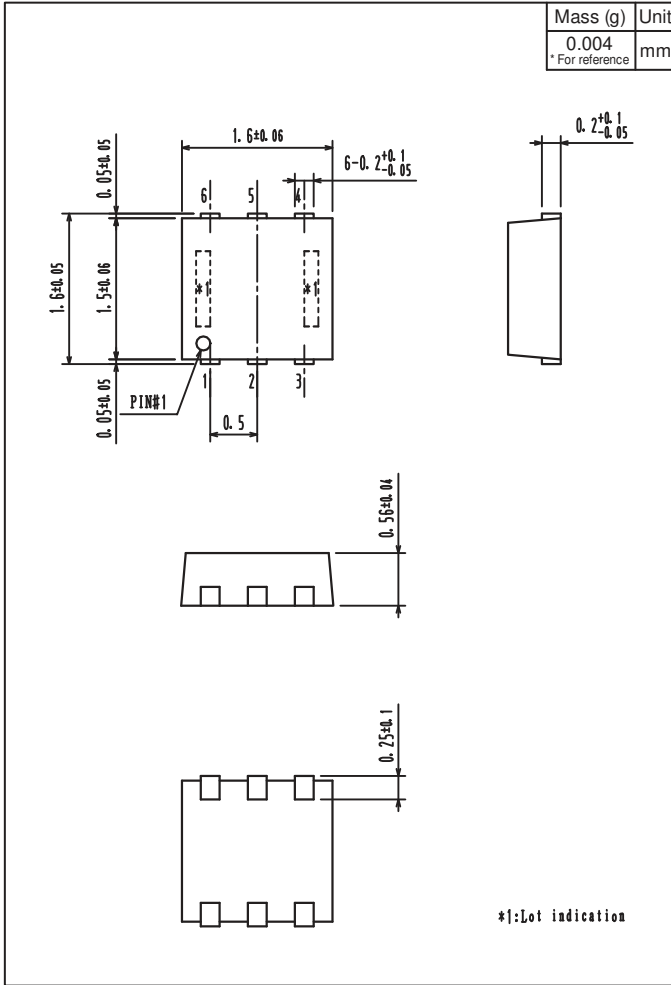




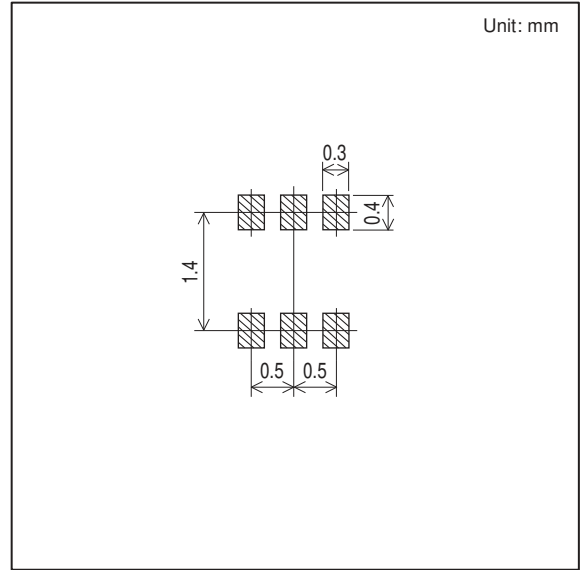
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Outline Drawing

SCH1337-TL-H



Land Pattern Example



Note on usage : Since the SCH1337 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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